



**MANAGING COMMERCIAL VEHICLE WEIGHT ENFORCEMENT
ACTIVITIES AT THE MISSOURI STATE HIGHWAY PATROL**

**From The Office Of State Auditor
Claire McCaskill**

Management of the truck weight enforcement program can be more effective by targeting high risk areas for violators, eliminating predictable weigh station hours, and establishing performance measures for weigh station employees.

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PERFORMANCE AUDIT



Office of
Missouri State Auditor
Claire McCaskill

September 2003

Better targeting of overweight trucks and less predictable weigh station operating hours could enhance state's truck weight enforcement program

This audit reviewed how well the State Highway Patrol manages its truck weight enforcement program, which helps keep potentially damaging overweight trucks off Missouri's roadways. State and federal laws state trucks generally should not weigh more than 80,000 pounds. State law further establishes the penalties for weight violations. Missouri has the nation's 6th largest highway system and ranks 13th for truck miles traveled at 12.6 million miles a day. The following highlights the findings:

Available data not used to target overweight trucks

Although the patrol collects data concerning total vehicles weighed and total overweight tickets issued from scale stations and portable units, patrol personnel do not analyze or compare the data between stations. In addition, some of this data was not always accurate.

The patrol could use this data to identify where enforcement is most needed. Auditors found enforcement activities concentrated at a limited number of fixed scale locations. Patrol personnel could not explain why some counties had no or very few overweight tickets. (See page 3)

Predictable weigh station hours allow truckers opportunity to break law

Auditors found weigh stations operate predictable hours, often open during midday, and closed late evening and early morning. Just over half the stations are still open at 10 p.m., with the number steadily declining after 10 p.m. For example, auditors found in Mound City, the commercial vehicle traffic was lighter overnight, but the percentage of overweight vehicles increased from 16 percent at 8 p.m. to 23 percent at 4 a.m. Auditors also found portable scales operate less frequently than permanent scale locations during evening and early morning hours. (See page 8)

Most tickets issued between 8 a.m. and 5 p.m.

Officers issued 64 percent of all overweight tickets between 8 a.m. and 5 p.m. Several patrol supervisors said scale station hours do not vary much month to month. (See page 9)

Data reporting system cannot be used to analyze enforcement resources

How patrol officers count vehicles is not consistent from one scale location to another. Some officers use a manual hand counter, while others estimate the number of vehicles weighed. Auditors found two stations which inflated vehicle counts to keep the weigh stations from closing due to low activity. (See page 11)

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YELLOW SHEET

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AT THE MISSOURI STATE HIGHWAY PATROL**

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Honorable Bob Holden, Governor
and
Colonel Roger D. Stottlemire, Superintendent
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The State Auditor's Office audited the commercial vehicle enforcement activities of the Missouri State Highway Patrol. The audit evaluated the division management and determined if vehicle weight laws are properly enforced and protecting state highway infrastructure.

The audit disclosed commercial vehicle enforcement activities can be better managed, the hours of operation at scale locations and portable units are predictable, and the patrol's management reporting system needs improvement.

We conducted the audit in accordance with applicable standards contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and included such tests of the procedures and records as were considered appropriate under the circumstances.

Claire McCaskill
State Auditor

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RESULTS AND RECOMMENDATIONS

1. Commercial Vehicle Enforcement Activities Can Be Better Managed

The Missouri State Highway Patrol's (patrol) management policy lacks certain attributes for efficient and effective management of commercial vehicle enforcement. Current management policies and practices do not:

- Target overweight vehicles.
- Use traffic data when scheduling officer work hours.
- Provide guidance on hours of operation.
- Maximize available personnel.
- Establish adequate performance goals and measures.

The patrol's decentralized management of each troop causes many of these conditions. Without disrupting this management structure, central command can enhance management of commercial vehicle enforcement to ensure patrol enforcement resources are properly deployed and roads are better protected from damage caused by overweight vehicles.

Background

State and federal laws and regulations detail truck weight limit enforcement. The legal weight limits are in Sections 304.180 through 304.220, RSMo 2000. Generally, trucks are restricted to a maximum weight of 80,000 pounds, a maximum single-axle weight of 20,000 pounds, and a maximum tandem-axle weight of 34,000 pounds. The statutes provide some specific exceptions to these limits.

Section 304.230, RSMo 2000 allows the removal of excess weight and Section 304.240, RSMo 2000 establishes penalties for weight violations.

Section 43.160, RSMo 2000 establishes the responsibility of the patrol for regulating traffic movement, enforcing traffic laws, and enforcing and preventing violation of laws relating to the size, weight and speed of commercial motor vehicles.

Section 304.230, RSMo 2000 states any peace officer or police officer of any county or city or any highway patrol officer can enforce the size and weight laws. This section also allows the patrol's superintendent to appoint commercial vehicle enforcement officers and the state's highway and transportation commissioners to deputize regularly employed maintenance men to enforce weight laws.

Commercial vehicle enforcement officers weigh commercial vehicles for compliance of axle weight, gross weight, and licensed weight in accordance with applicable state and federal laws. In addition, officers perform safety and regulatory inspections of drivers, commercial vehicles, and cargo. This work involves the use of portable scales which patrol the public highways and the operation of permanent weigh stations for the purpose of determining compliance with all

applicable state commercial vehicle regulations, driver regulations, and hazardous material requirements.

We focused attention on the commercial vehicle weight enforcement activities because of the potential for damage to state roadways from overweight vehicles. Road deterioration is also caused by many other factors such as temperature, weather, thickness of asphalt, road bed materials, consistency of road beds, and vehicle traffic in general.

Missouri has the nation's 6th largest highway system and ranks 13th for truck miles traveled at 12.6 million daily miles.

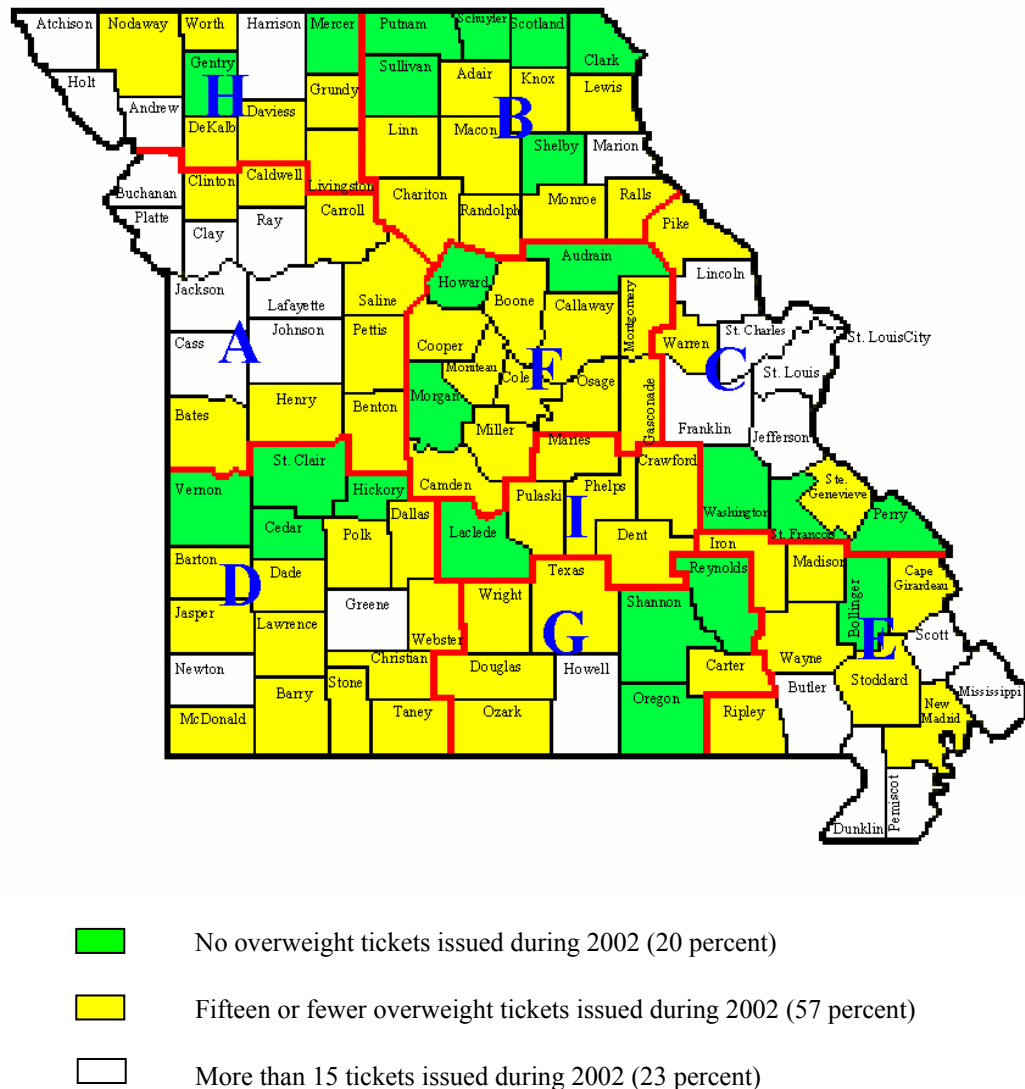
The patrol does not use available data to target overweight vehicles

The patrol collects data from scale stations and portable units concerning the number of vehicles weighed and the number of overweight tickets issued. This data is not analyzed or compared among scale stations or portable units. Using this data in a targeting system would allow the patrol to trend data, identify where enforcement is most needed and deploy resources accordingly.

Our review found enforcement activities are concentrated at a limited number of fixed scale locations, mostly along interstates. Although portable units are available for targeting other locations, we found few or no overweight tickets issued in several counties across the state during 2002.

Figure 1.1 illustrates which counties had few or no overweight tickets issued by the patrol during 2002. The letters in the map represent the patrol troop area.

Figure 1.1: Overweight Tickets by County



The lack of overweight tickets issued in certain areas is a strong indicator of possible areas for enforcement improvement. Patrol personnel could not explain why some counties did not have any or very few overweight tickets. One captain stated the travel time incurred by portable units limits enforcement in some areas. Another captain said he did not understand the lack of tickets in some of his counties because they were logging communities where potential violations exist.

Policies are needed on hours of operation for scale stations and portable units

The patrol does not have statewide policies on hours of operation for all scale stations and portable units. Such policies should consider location differences, but provide some basic standards of operation. Without such policies to help captains determine the hours of operation, the patrol cannot adequately ensure effectiveness of the weight enforcement program.

Although statewide policies do not exist, three of nine troops established guidelines for hours of operation for officers in their troop; however, the guidelines are not always clear or followed. For example, Troop A's policy specifically requires overnight and weekend shifts for all locations except the Lone Jack scale location, which is not clearly addressed. Further, guidelines established by Troop D require portable units to work at least two shifts which start at 7 p.m. for each 28-day schedule; but neither of the two portable units in Troop D staffed such shifts during August 2002.

3 of 9 troops
have hours of
operation policies

Hours of operation are not always maximized based on available personnel

Our analysis noted available personnel are not always scheduled to maximize the hours of operation. Multiple officers are sometimes scheduled to work during midday, leaving few or no officers scheduled to work late evening and early morning hours.

For example, three commercial vehicle enforcement officers are normally assigned to the Caruthersville fixed scale station. During 2002, the Steele fixed scale station was under construction and as many as seven additional officers were temporarily transferred from Steele to Caruthersville. Despite the increased number of employees, our review of August 2002 noted multiple employees worked the same weekday shift, while weekend shifts went without additional coverage.

Patrol officials stated it was their policy not to assign commercial vehicle officers to late shifts unless highway patrol troopers were on duty. However, according to trooper schedules, 24-hour coverage was provided during weekends and the temporary officers could have been assigned to accommodate broader coverage at the weigh station. Also, no additional coverage was provided to the portable units assigned to the troop.

Adequate performance goals and measures have not been established for officers

The patrol has not established a system of performance goals and measures for commercial vehicle weight enforcement activities. Performance measures would assess accountability and enhance decision making. The tasks of allocating resources and assuring effective enforcement are made easier by meaningful and accurate performance information. Performance measures should be reported for the activities of the commercial vehicle officers.

A system for
assessing
accountability is
needed

Performance measuring systems track the resources used and the resulting accomplishments. There are two types of accomplishment measures: outputs measuring quantity of services provided and outcomes measuring the output's results.

Performance information should also be frequently compared with data from earlier year(s), established targets, externally established standards/norms, or other comparable entities. In addition, performance information should be reported consistently to compare performance over time, understand the measures used and to evaluate any trends noted. Performance information must be derived from a system with controlled and verifiable data. A performance management

system would enhance the patrol's ability to evaluate whether enforcement resources are producing desired results.

The patrol's General Order 01-03 requires troops to establish goals and objectives, and evaluate their achievement. The order does not provide guidance on what type of goals and objectives to establish. Our review noted goals established by the troops were not always specific or measurable and did not always address commercial vehicle enforcement activities. For example, one troop's goal to "reduce the number and severity of traffic accidents through enforcement and promotion of traffic safety" had a corresponding objective for commercial vehicle officers to "maintain or increase commercial vehicle arrests." In evaluation of this goal, the troop cited an increase in traffic fatalities, but did not evaluate commercial vehicle enforcement activities.

Other goals and objectives were not easily measured or adequately evaluated. For example, one troop's 2001 goal was "to reduce the number of fatal, injury, and property damage traffic accidents." Corresponding objectives included: "increase all phases of truck enforcement when truck traffic is heaviest," "increase enforcement of vehicle equipment violations" and "increase enforcement on secondary and state lettered roads by 5 percent, especially in high accident locations and rural areas." The troop's evaluation referred to overall accident statistics, but did not include specific references to commercial vehicle enforcement activities.

Conclusion

The patrol needs to improve policies and procedures to effectively and efficiently manage commercial vehicle weight enforcement activities. A system to target overweight vehicles using traffic data could make the patrol more effective. Establishing adequate performance goals and measures is also essential for proper management of commercial vehicle weight enforcement activities.

Recommendations

We recommend the Superintendent, Missouri State Highway Patrol:

- 1.1 Improve management policies and procedures to effectively and efficiently manage commercial vehicle weight enforcement activities, including establishing a system to target overweight vehicles using available traffic data for scheduling, and establishing policies to provide guidance on hours of operations.
- 1.2 Establish a system of performance goals and measures related to commercial vehicle weight enforcement activities.

Superintendent, Missouri State Highway Patrol Comments:

- 1.1 *The Missouri State Highway Patrol will continue to review hours of operations of commercial vehicle enforcement personnel and activities in order to ensure the most efficient use of manpower and resources are achieved. Commercial vehicle weight enforcement activities are included in that review.*

- 1.2 *Goals and objectives are a vital aspect of the Missouri State Highway Patrol's functional process. While certain goals and objectives are broad in nature, others may be more precise. The Patrol will continue to establish realistic goals and objectives which apply to all organizational entities, including the Commercial Vehicle Enforcement Division. The degree of the achievement of these goals and objectives will be monitored to ascertain whether or not the desired outcome is met.*

2. Predictable Weigh Station Operating Hours Allow Truckers Opportunity to Break Law

Our trend analysis found weigh stations operate on a predictable schedule. Scales were open more frequently during midday, and much less frequently late evening and early morning hours. The patrol does not have guidelines to establish variable schedules, and troops have not employed practices to ensure variability. As a result, the opportunity to violate the law exists.

Permanent scale location hours are predictable

Scales operate on a predictable schedule because a higher percentage of permanent scale locations are open more frequently during the midday.¹ Figure 3.1 demonstrates the percent of scale locations open by hour of day in August 2002.

Figure 2.1: Percent of Permanent Scale Locations Open by Hour of Day

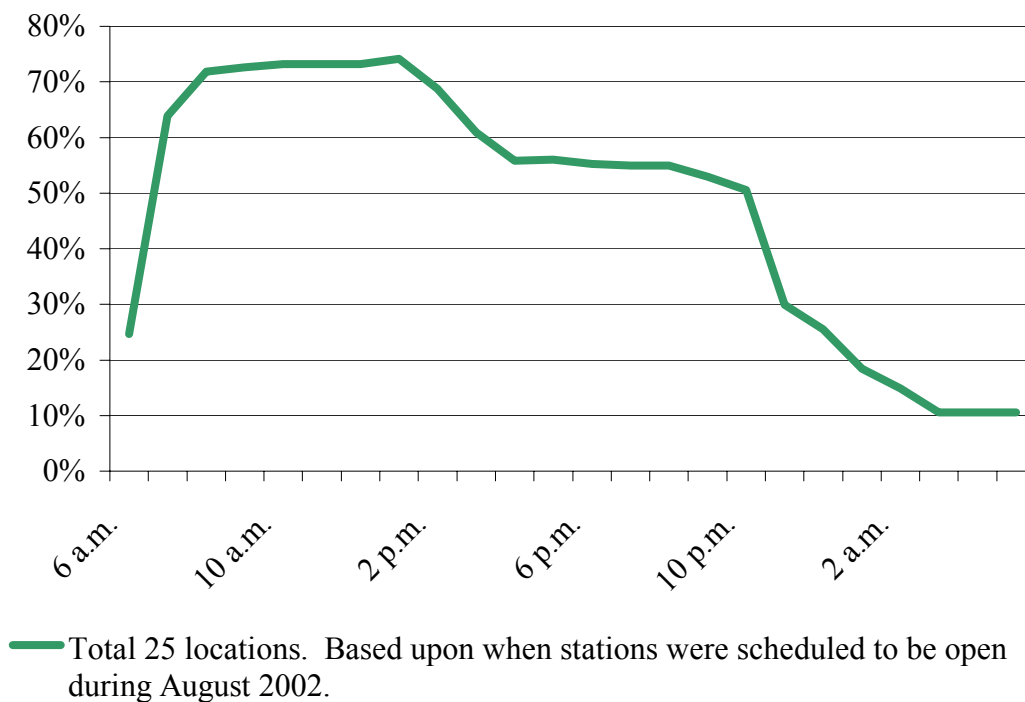


Figure 2.1 shows a sharp decline in open weigh stations after 1 p.m. and a steeper decline in open stations after 10 p.m. Weigh stations with the PrePass² technology were closed when 65.5 percent of trucks equipped with this technology passed between June and December 2002. Further, the locations of permanent scales are well known, and through the use of CB radios, truckers are able to determine whether scales are open or closed.

¹ This information is based on the hours employees were scheduled to work.

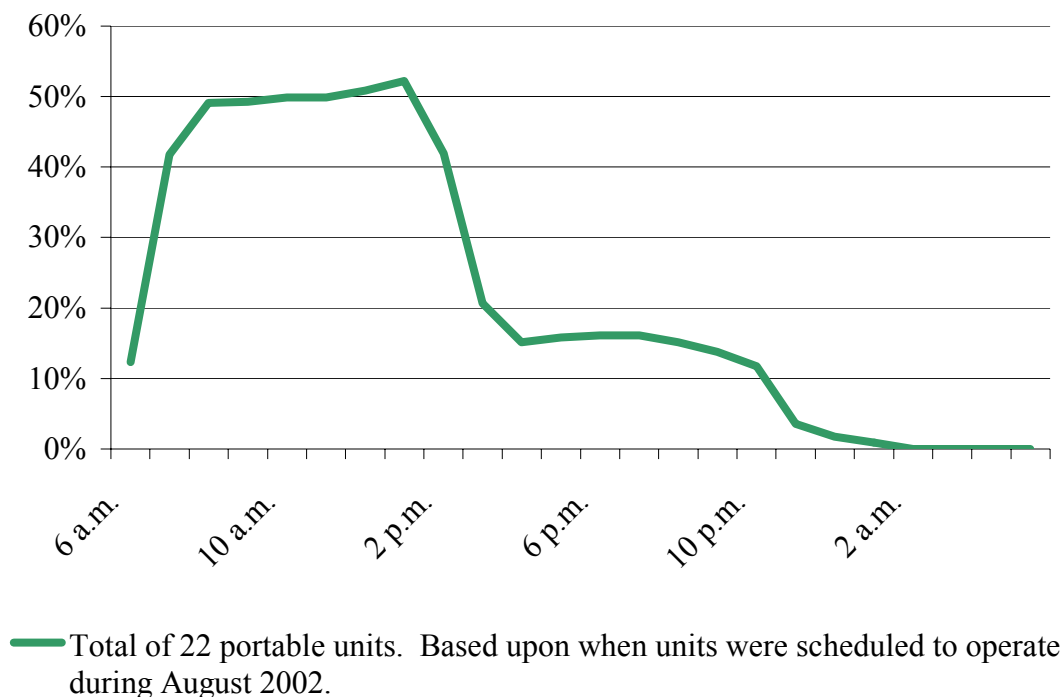
² PrePass is an electronic screening program that allows qualified carriers to bypass weigh stations based on electronic communication of critical weight and licensing data. Further description of this system can be found on page 11.

From our review of the data collected at Mound City in Holt County, we found while the commercial vehicle traffic was lighter overnight the percentage of overweight vehicles increased. For example the percentage of overweight vehicles increased from 16 percent at 8 p.m. to 23 percent at 4 a.m. Research conducted for the Federal Highway Administration has suggested that permanent weigh stations should use hours of operation that include nights and weekends when overweight percentages may be the highest. Also, the element of predictability provides truckers with an opportunity to try to avoid being weighed or inspected.

Portable scale hours of operation are predictable

Figure 2.2 demonstrates the percent of portable scales in operation by hour of day in August 2002. This information is based on the hours employees were scheduled to work the portable scale units and does not account for officers performing other duties. Portable scales were in operation even less frequently than permanent scale locations during evening and early morning hours. The steep decline in activity begins at 1 p.m.

Figure 2.2: Percent of Portable Scales in Operation by Hour of Day

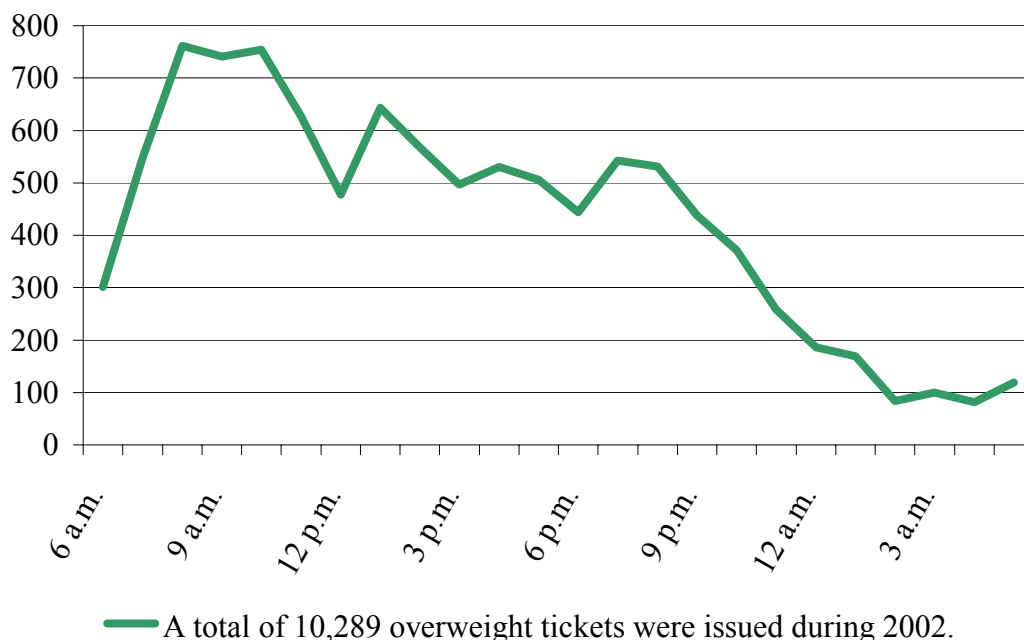


Most tickets are issued between 8 a.m. and 5 p.m.

Our review of tickets issued for weight violations found officers issued 64 percent of all overweight tickets between 8 a.m. and 5 p.m. During our discussion with commercial vehicle enforcement officers, a number of supervisors admitted the scale station schedules do not vary much from month to month.

Figure 2.3 demonstrates the number of overweight tickets issued by hour of day. This information includes all tickets issued at scale stations and portable units.

Figure 2.3: Number of Overweight Tickets Issued by Hour of Day



Conclusion

The hours of operation for Missouri's truck scales are highly predictable, with scales open more frequently during midday and less often at night and in early morning. Variable schedules and targeting of overweight vehicles would eliminate predictability and provide more effective enforcement.

Recommendation

We recommend the Superintendent, Missouri State Highway Patrol:

- 2.1 Establish variable schedules for permanent and portable scales to include more coverage in the late hours and weekends.

Superintendent, Missouri State Highway Patrol Comments

- 2.1 *The Commercial Vehicle Enforcement Division will ensure that personnel and facilities are used in the most efficient manner possible. Consideration is given to traffic volume as well as early, late, or midday hours. Although a larger percentage of truck traffic may be in violation at 4 a.m. due to small traffic volume, a larger actual number of trucks can be in violation at midday due to a much greater volume of traffic.*

3. Management Reporting System Needs Improvement

The patrol cannot use its reporting system to analyze how enforcement resources are used. Better procedures and supervisory oversight are needed to ensure officers properly recognize their reporting responsibilities. Our review determined some information was not accurately collected and properly reported to the Federal Highway Administration. We found the patrol's limited monitoring of the reporting system led to these conditions.

Background

The patrol requires officers operating each static and portable scale to track the number of vehicles weighed and other data in the Commercial Vehicle Enforcement Activity Reporting System (reporting system). Various reports can be generated to allow the patrol to track the activity of each scale location and portable unit.

The MoDOT has partnered with Heavy Vehicle Electronic License Plate, Inc. (HELP), a non-profit organization, to equip permanent scale locations with PrePass. PrePass is an electronic screening program operated by HELP that allows qualified carriers to be checked at highway speeds for safety, vehicle weight, and regulatory compliance, according to criteria established by the state. The driver receives a green light signal (by use of transponder technology installed in the truck) to proceed without stopping if the truck is in compliance and the size and weight are legal or if the station is closed. PrePass charges the driver 99 cents per bypass up to a maximum charge of \$3.96 (4 bypasses per day). No charges occur if the station is closed. None of these charges are remitted to the state. As of December 2002, Missouri had 18 permanent sites equipped with PrePass, with the first site starting in June 2002 at the Joplin scale station. Nationwide, there are 238 PrePass sites in 24 states.

Inaccurate counting of vehicles weighed

Procedures to track the number of vehicles weighed are not consistent from one scale location to another. The method of counting vehicles varied because officers did not have adequate guidance on how vehicles weighed should be counted. Most officers use a manual hand counter to track the number of vehicles weighed; however, officers at several locations estimate the number of vehicles weighed. In addition, some personnel at scale locations counted the vehicles driving through the bypass lane as weighed vehicles, while other locations only counted the vehicles crossing the static scale.

Vehicle counting methods were not consistent

Our review of the number of vehicles weighed in 2002 identified two scale locations with significantly higher counts compared to other similar locations. Enforcement personnel said they inflated the counts out of concern the weigh stations would close for lack of activity. These personnel received this impression from supervisors. This resulted in inaccurate management reports including inaccurate reporting to the Federal Highway Administration as part of Missouri's annual certification of enforcement efforts in accordance with requirements of Title 23, Code of Federal Regulations Part 657.

In January 2003, the captain of the commercial vehicle enforcement division (division) sent an interoffice communication to troops requesting they count a vehicle crossing the static scale as a weighed vehicle. The captain has not followed up to determine if changes have been implemented to ensure consistency in tracking the number of vehicles weighed.

Better management reports are needed

Management reports prepared by the patrol are not designed to provide comparisons between scale locations or portable units, and do not always contain essential data to properly evaluate enforcement activities. Without this information, management cannot adequately evaluate the effectiveness and efficiency of the scale locations.

- Information included in some management reports was not always accurate. For example, the reporting system indicated portable unit number 1508 in Troop E weighed 5,806 vehicles on a single day, or 16 times more vehicles than other portable units weighed during the entire year (other portable units weighed between 6 and 350 vehicles during 2002). The original document reporting this data to headquarters was not maintained and there is no evidence this data is reviewed for accuracy. When we discussed this obvious error with the portable unit officer, he stated no vehicles were weighed that day. In March 2003, division personnel requested the ability to input and process this data rather than the patrol's information systems division.
- The patrol maintains a database of information from all tickets issued. Our review noted the scale location designator was not always tracked for overweight tickets. This designator links the overweight ticket to a specific scale location or portable unit on the reporting system. In 2002, 1,670 of 9,927 (16.8 percent) tickets issued by commercial vehicle officers did not include the scale station designator. The designator would be useful in evaluating performance of stations.
- Information related to the hours a scale station is open is not maintained. Reports analyzing operating hours of a scale station would help management evaluate the effectiveness and efficiency of scale locations. While such information is not tracked by the patrol, PrePass technology installed in several weigh stations electronically monitors the scale station open/closed sign for billing purposes. For example, we obtained PrePass data for the period June 2002 through December 2002 and found 803,651 of 1.2 million PrePass equipped trucks (65.5 percent) passed by a Missouri weigh station while the station was closed. The percentage of vehicles that passed a closed weigh station varied significantly from one weigh station to another during this period. For example, when we reviewed some of the inbound scale locations, we noted the Joplin eastbound station was closed only 22.8 percent of the time while the St. Clair westbound station was closed 66.4 percent of the time. Some of the outbound stations showed much higher percentages, topping at 88.8 percent. The patrol concentrates enforcement efforts on inbound scale locations, which weigh vehicles entering the state, rather than outbound locations weighing departing vehicles.

Conclusion

The patrol needs to develop an accurate reporting system to include all essential data and provide reports comparing data between scale locations or portable units. As a result of the deficiencies noted in reports maintained by the patrol, commercial vehicle weight enforcement managers may not have critical information necessary to properly manage enforcement activities.

Recommendation

We recommend the Superintendent, Missouri State Highway Patrol:

- 3.1 Improve the reporting system to effectively and efficiently manage commercial vehicle weight enforcement activities.

Superintendent, Missouri State Highway Patrol Comments

- 3.1 *The Commercial Vehicle Enforcement Division has recently implemented an improved method of reporting commercial vehicle activities. Commercial vehicle officers will electronically submit information from the CVE Daily Reporting Form to General Headquarters. An improvement was also made in the Traffic Arrest System to increase the accuracy in reporting of tickets issued by a specific portable unit or scale.*

The Commercial Vehicle Enforcement Division has also established a more accurate method of tracking the number of vehicles weighed. A division special order has been revised that provides instructions on weighing vehicles that cross the static scales.

In addition to addressing the recommendations contained in this report, the other responsibilities incumbent to commercial vehicle enforcement personnel certainly need to be realized. The following data serves to illustrate some of the other areas of responsibility, in addition to weight enforcement.

January1, 2002 – December 31, 2002

ARRESTS

<i>Motor Carrier Authority</i>	<i>3,882</i>
<i>Drivers License</i>	<i>992</i>
<i>Vehicle License</i>	<i>4,505</i>
<i>Equipment</i>	<i>5,719</i>
<i>Other (Log Book, Fuel License etc)</i>	<i>1,320</i>
<i>Total</i>	<i>16, 348*</i>

** This does not include the overweight tickets mentioned in this report*

DRIVER/VEHICLE INSPECTIONS – 58,895

	<i>VIOLATIONS</i>	<i>OUT OF SERVICE VIOLATIONS</i>
<i>Driver</i>	62,368	6,182
<i>Vehicle</i>	101,730	27,205
<i>Hazardous Material</i>	1,713	374
<i>Total</i>	165,811	33,761

OBJECTIVES, SCOPE AND METHODOLOGY

Objectives

The objectives of this audit were to determine if the Commercial Vehicle Enforcement Division was managed effectively and to ensure vehicle weight laws are being properly enforced to protect the state highway infrastructure.

Scope and Methodology

To accomplish the audit objectives we:

- Reviewed state laws and regulations governing weight enforcement.
- Reviewed policies and guidelines that govern operations of the division and its nine troop headquarters.
- Interviewed enforcement personnel to determine the policies and procedures used to enforce vehicle weight laws and prevent excessive damage to Missouri roads.
- Analyzed employee work schedules to determine if hours of operation were predictable.
- Observed weigh station procedures and employee work routines during visits to weigh station facilities.
- Accompanied two commercial vehicle enforcement officers during routine operations of the portable scale unit and observed portable unit procedures.
- Obtained and analyzed the Missouri State Highway Patrol's detailed computerized data of all violations cited by enforcement officers to determine the overweight violations issued during calendar year 2002. We analyzed the data to determine the number of overweight violations issued in each county and troop, and by each commercial vehicle enforcement officer. We reviewed division procedures to validate the data and found procedures to be adequate.
- Reviewed data from internal road dynamic sites maintained by the MoDOT as part of the strategic highway research program. These sites provide continuous data on the number of overweight vehicles traveling on highways where the sensors are permanently located. We also reviewed MoDOT procedures to calibrate the sensors to ensure the data collected is accurate.

BACKGROUND

Patrol officials stated their mission is to serve and protect all people by enforcing laws and providing services to ensure a safe and secure environment.

The primary purpose of the patrol is to enforce the traffic laws and promote safety upon the highways. However, the patrol has been tasked by the Governor and the legislature with many additional law enforcement duties including motor vehicle and commercial vehicle inspections, driver's license examinations, criminal investigations, criminal laboratory analysis and research, public education, and gaming enforcement.

The patrol is under the command of a superintendent appointed by the Governor. The superintendent is supported by the assistant superintendent and five bureau commanders. The patrol's Field Operations Bureau has authority over each of the patrol's nine troops and the Support Services Bureau directs the Commercial Vehicle Enforcement Division.

Each troop has a captain, who acts as the commanding officer for the troop. The troop captain is responsible for supervising all troop operations, employees under their command, and commercial vehicle enforcement officers. Commercial vehicle enforcement officers are charged with enforcing all applicable federal and state rules, regulations and statutes related to commercial vehicles. The patrol is authorized to hire 172 commercial vehicle enforcement officers; however, only 140 were employed at December 31, 2002.

In addition to the above structure, within the patrol there is a Commercial Vehicle Enforcement Division designed to coordinate uniform enforcement of commercial vehicle laws and regulations, coordinate planning and construction of new scale facilities, and oversee the maintenance of the SAFETYNET computer system which is used by commercial vehicle enforcement officers to perform roadside inspections.

To address its vehicle weight enforcement responsibilities, the patrol uses 26 permanent scales and 22 portable scales to weigh vehicles statewide. Seven of the troops use permanent scales and all nine troops use portable scales. The permanent scales are positioned on major highways throughout the state. Enforcement personnel use portable scales to work out of their vehicles while on duty and are assigned to patrol various counties in their troop. Permanent scale facilities are constructed by the MoDOT and portable scales are purchased by the patrol; however, the patrol and the MoDOT share maintenance responsibilities of the official weigh station facilities throughout the state.

COMMERCIAL VEHICLE ENFORCEMENT ACTIVITIES REVIEWED

Table III.1 and III.2 show information obtained from the patrol's Commercial Vehicle Enforcement (CVE) Activity Reporting System, and served as the starting point for our review; however, as indicated in this report, information entered into the system was not always accurate.

Table III.1 depicts the total hours open and number of vehicles weighed at each fixed scale location during the year ending December 31, 2002.

Table III.1: Fixed Weigh Station Activity Summary - 2002

Troop	Station	Direction	Hours Open	Total Vehicles Weighed
A	Platte City	North	3,656	149,593
A	Kearney	North	3,180	61,680
A	Mayview	East	6,433	858,758
A	Mayview	West	866	106,098
A	Harrisonville	South	2,983	50,704 ¹
A	Harrisonville	North	179	3,069 ¹
A	Lone Jack	East	2,502	16,728
B	Hannibal	West	1,801	2,147 ²
C	St. Clair	East	1,681	157,182 ¹
C	St. Clair	West	5,652	657,022 ¹
C	Foristell	East	1,829	115,477 ¹
C	Foristell	West	6,189	181,092 ¹
C	Barnhart	South	2,161	426,465 ⁵
D	Strafford	East	2,108	29,692 ¹
D	Joplin	East	8,002	396,676
D	Joplin	West	3,369	149,139
E	Steele	North	70	527 ³
E	Caruthersville	West	4,430	64,016
E	Charleston	South	5,241	77,217 ¹
G	Willow Springs	East	4,055	72,239
G	Willow Springs	West	3,351	53,488
H	Eagleville	North	3,200	79,127
H	Eagleville	South	5,836	103,743
H	St. Joseph	East	3,663	38,095
H	Watson	North	1,268	39,961
H	Watson	South	5,938	142,331
	Closed Stations ⁴		<u>1,829</u>	<u>82,337</u>
	Total		<u>91,472</u>	<u>4,114,603</u>

¹This location estimated the number of vehicles weighed in 2002.

²This location only counted vehicles that were inspected or found to be overweight.

³This location was closed for construction during most of the fiscal year.

⁴Patrol personnel said actual data was entered into the CVE system in error to scale locations closed during fiscal year 2002.

⁵Patrol personnel said this number appeared significantly higher than actual.

Source: SAO analysis of CVE Activity Reporting System

APPENDIX III

Table III.2 depicts the hours of operation and number of vehicles weighed by each portable unit during the year ending December 31, 2002. The CVE system reported 5,951 vehicles weighed by Troop E portable unit number 1508 when only 145 were actually weighed. Adjusting for this reporting error reduces total vehicles weighed to 3,820.

Table III.2: Portable Unit Activity Summary-2002

Troop	Portable Scale Unit Number	Hours of Operation	Vehicles Weighed
A	1500	1,603	110
	1501	1,175	450
	1502	1,331	192
B	1503	1,349	46
	1504	1,180	210
C	1505	1,323	969
	1506	1,910	129
	1507	1,170	144
D	1549	152 ²	11
	1550	1,463	85
E	1508	1,594	5,951 ¹
	1509	1,962	70
	1510	1,922	74
F	1511	1,956	38
	1512	2,130	45
	1513	1,065	32
G	1514	1,452	56
H	1515	1,595	291
	1516	1,174	340
	1517	1,326	347
I	1518	1,607	30
	1519	<u>1,239</u>	<u>6</u>
Total		<u>31,678</u>	<u>9,626</u>

¹The patrol CVE Activity Reporting System showed this unit weighed 5,806 vehicles on March 7, 2002. The commercial vehicle officer assigned to this unit provided a daily activity log which indicated no vehicles were weighed on this day. Patrol personnel stated this overstatement was the result of a data entry error.

²Patrol personnel said this number appeared significantly lower than actual.

Source: SAO analysis of CVE Activity Reporting System

APPENDIX III

Table III.3 depicts the number of tickets for overweight vehicles issued in each county during the year ending December 31, 2002.

Table III.3: Overweight Tickets by County Issued during 2002

County	Number of Overweight Tickets	County	Number of Overweight Tickets	County	Number of Overweight Tickets
Adair	7	Greene	162	Ozark	1
Andrew	23	Grundy	1	Pemiscot	411
Atchison	358	Harrison	650	Perry	0
Audrain	0	Henry	12	Pettis	8
Barry	1	Hickory	0	Phelps	7
Barton	1	Holt	21	Pike	4
Bates	14	Howard	0	Platte	708
Benton	15	Howell	126	Polk	2
Bollinger	0	Iron	10	Pulaski	1
Boone	1	Jackson	117	Putnam	0
Buchanan	38	Jasper	8	Ralls	1
Butler	18	Jefferson	90	Randolph	6
Caldwell	1	Johnson	20	Ray	25
Callaway	4	Knox	1	Reynolds	0
Camden	7	Laclede	0	Ripley	6
Cape Girardeau	11	Lafayette	2,755	St. Charles	651
Carroll	10	Lawrence	11	St. Clair	0
Carter	1	Lewis	1	St. Francois	0
Cass	158	Lincoln	32	St. Louis	210
Cedar	0	Linn	4	Ste. Genevieve	2
Chariton	1	Livingston	4	Saline	15
Christian	2	McDonald	2	Schuyler	0
Clark	0	Macon	10	Scotland	0
Clay	723	Madison	5	Scott	19
Clinton	7	Maries	2	Shannon	0
Cole	9	Marion	31	Shelby	0
Cooper	1	Mercer	0	Stoddard	10
Crawford	1	Miller	6	Stone	1
Dade	3	Mississippi	225	Sullivan	0
Dallas	2	Moniteau	1	Taney	6
Daviess	3	Monroe	1	Texas	4
DeKalb	2	Montgomery	2	Vernon	0
Dent	2	Morgan	0	Warren	6
Douglas	1	New Madrid	15	Washington	0
Dunklin	19	Newton	1,808	Wayne	7
Franklin	583	Nodaway	6	Webster	2
Gasconade	1	Oregon	0	Worth	3
Gentry	0	Osage	1	Wright	5
				Total	<u>10,289</u>

Source: SAO analysis of patrol ticket data

APPENDIX III

Table III.4 depicts the number of tickets for overweight vehicles issued by hour of day during the year ending December 31, 2002.

Table III.4: Number of Overweight Tickets by Hour of Day

Violation Hour	Number of Overweight Tickets
12:00 a.m.	186
1:00	169
2:00	83
3:00	100
4:00	81
5:00	119
6:00	301
7:00	547
8:00	761
9:00	741
10:00	754
11:00	628
12:00 p.m.	477
1:00	643
2:00	568
3:00	497
4:00	530
5:00	506
6:00	444
7:00	543
8:00	531
9:00	438
10:00	372
11:00	259
Time Unknown	11
Total	<u>10,289</u>

Source: SAO analysis of patrol ticket data

APPENDIX III

Table III.5 depicts the number of tickets for overweight vehicles issued on the various types of highway during the year ending December 31, 2002.

Table III.5: Number of Overweight Tickets by Highway Description

Highway Description	Number of Overweight Tickets
Interstate Highway	8,969
U.S. Highway	643
State Numbered	311
Other	167
State Lettered	100
County Road	74
City Street	18
Business Route	3
Outer Road	3
Alternate Route	<u>1</u>
Total	<u>10,289</u>

Source: SAO analysis of patrol ticket data